# AGRICULTURAL RESOURCES

LOCAL AGRICULTURAL RESOURCES ASSESSMENT (LARA) MODEL RESULTS

for HEFNER-BROWN MINOR SUBDIVISION (4 LOTS + REMAINDER) SAN DIEGO COUNTY, CALIFORNIA TPM 21159

> Date April 9, 2009

## Prepared by:

Marcus Lubich, County Agricultural Resources Specialist
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

#### 1.0 EXECUTIVE SUMMARY

The proposed project is a Tentative Parcel Map to subdivide a 58.34 acre parcel into four lots plus a remainder ranging from 7.4 to 13.1 net acres. The project site is located at 31460 Aqueduct Rd. Bonsall, (south of Via Urner Way) in the Bonsall Community Plan Area, within unincorporated San Diego County. Access is provided by two existing private streets, Aqueduct Road and Top Triangle Ranch. The project would be served by on-site septic systems. There is a SD County Water Authority aqueduct traversing the subject property. Currently, there is an agricultural easement onsite that pro

Based on the results of the Local Agricultural Resources Assessment (LARA) Model, the site is not considered an important agricultural resource. The site received a high rating for climate, water, land use consistency, and surrounding land use. The site received a low rating for soil quality and slope. To be considered an important agricultural resource under the LARA model, a soil rating of either high or moderate must be present. The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils. Therefore, the project receives a low rating for soil quality based on this score, which means that the site is not an important agricultural resource. The results of each LARA model factor rating that contribute to this determination are detailed below.

#### 2.0 LOCAL AGRICULTURAL RESOURCE ASSESSMENT (LARA) MODEL

In determining whether impacts to agricultural resources are significant environmental effects, the CEQA Guidelines references the California Agricultural LESA Model (1997) prepared by the California Department of Conservation (DOC), as an optional methodology that may be used to assess the relative value of agriculture and farmland. In the past, the LESA model has been applied to various agricultural properties throughout the County of San Diego to assess agricultural importance in association with proposed discretionary land use permits. After several years of practical experience with application of the LESA model in San Diego County, the inadequacy of the model in capturing the unique and varied character of San Diego agriculture has become apparent. An alternative approach, referred to as the Local Agricultural Resource Assessment (LARA) model has been developed to assess the relative value of agricultural resources in San Diego County. Specific documentation of the LARA model can be found in the Guidelines for Determining Significance for Agricultural Resources at <a href="http://www.sdcounty.ca.gov/dplu/Resource/3~procguid/3~procguid.html#agr.">http://www.sdcounty.ca.gov/dplu/Resource/3~procguid/3~procguid.html#agr.</a>

The LARA model takes into account the following factors in determining the importance of an agricultural resource:

Required Factors:

- Water
- Climate
- Soil Quality

Complementary Factors:

- Surrounding Land Uses
- Land Use Consistency
- Topography

The following subsections detail the rating assigned to the project site for each of the above factors.

#### 2.1 Water

The water rating is primarily based the site's County Water Authority (CWA) service status, however if the project does not already have imported water service, the underlying groundwater aquifer type and the presence of a groundwater well is also considered (Table 1).

The project site is located within the CWA service area and is served by the Rainbow Municipal Water District. The subject property has an existing residence that has existing water infrastructure connections and is metered. The site is located on Fractured Crystalline Rock and there are no existing wells located onsite. Therefore, based on the CWA service status, the underlying groundwater aquifer type and the absence of a groundwater well the site receives a **high** water rating.

Table 1. Water Rating 1

County Water Authority (CWA) Service Status	Groundwater Aquifer Type and Well Presence	Rating
Inside CWA service area with existing water infrastructure connections and a meter	Any groundwater aquifer type	High
	The site is located in an Alluvial or Sedimentary Aquifer and has an existing well	
Inside CWA service area with infrastructure connections to the site, but no meter has been installed	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Moderate
	The site is located on Fractured Crystalline Rock and has an existing well	Moderate
	The site is located on Fractured Crystalline Rock, but has no existing well	Low
	The site is located in an Alluvial or Sedimentary Aquifer and has an existing well	Moderate
Outside CWA or inside CWA but infrastructure connections are not available at the site and no meter is installed	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Low
	The site is located on Fractured Crystalline Rock (with or without a well)	Low
	The site is located in a Desert Basin (with or without a well)	Low

If more than one underlying groundwater aquifer type exists at a site, usually the aquifer type that could produce the most water should be used to obtain the water rating. If it would be more reasonable to apply the rating based on the aquifer that would produce less water, a clear justification and reason for doing so must be provided.

#### 2.2 Climate

Sunset Zones are used as a standard measure of climate suitability due to the variability of microclimate conditions that the Sunset zones take into account. Recognizing that the Sunset Zones were not developed as a tool to determine the suitability for commercial agricultural production, their use is not intended to determine suitability for specific crops, rather they are a measure of overall climate suitability for the typical agricultural commodities produced in San Diego County. The project site is located within Sunset Zone 23, which has a rating of **high**.

Climate (Sunset Zone) Description	Rating
Zone 23 represents thermal belts of the Coastal Areaclimate and is one of the most favorable for growing subtropical plants and most favorable for growing avocados. Zone 23 occurs in coastal incorporated cities and also occurs in the unincorporated communities of Fallbrook, Rainbow, Bonsall, San Dieguito, Lakeside, western portions of Crest and Valle De Oro, Spring Valley, Otay, and western portion of Jamul-Dulzura.	High

#### 2.3 Soil Quality

The project's soil quality rating is based on the presence of soils that meet the quality criteria for Prime Farmland or Farmland of Statewide Importance as defined by the Farmland Mapping and Monitoring Program (FMMP) that are available for agricultural use and that have been previously used for agriculture.

Currently, there is an agricultural easement along the western portion of the property that is utilized as an avocado grove. The remainder of the site has not been used for agricultural purposes. There are 4.5 acres of land unavailable for agricultural use, which consists of Aqueduct Road, onsite roads, and existing building pads. The project site contains 4.1 acres of Fallbrook sandy loam, 5 to 9 percent slopes, eroded (FaC2) and 0.48 acres of Ramona sandy loam, 5 to 9 percent slopes (RaC) which meet the soil quality criteria for Farmland of Statewide Importance Soils as defined by the Farmland Mapping and Monitoring Program (FMMP). The site has 0.27 acres of Visalia sandy loam, 0 to 2 percent slopes (VaA) which meets the soil quality criteria for Prime Farmland Soils as defined by the Farmland Mapping and Monitoring Program (FMMP). The remaining portions of the subject property contain soils that are not considered important as defined by the FMMP.

The project's soil quality rating is 0.05, as detailed in Table 2, Soil Quality Matrix. The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils. Therefore, the project receives a **low** rating for soil quality based on this score.

TPM 21159 FMMP Soils CIE2 Legend Parcels with out labels Highways Freeways Streets Water Bodies Water Bodies Statewide Significance Soils Prime Farmland Soils Other BONSALL Acid igneous rock land Bonsall Alternant clay Anderson very gravelly sandy loam Arlington coarse sandy learn Auld clay Auld stony clay Badland Bancas stony loam Blasingame loam Blasingame stony loam Bonsall-Fallbrook sandy loam Bonsall sandy loam Bonsall sandy loam, thick surface Boomer loam Baomer stony loam Bosanko ciay AsV AsV Bosanko stony ciay Bull Trail sandy loam Calpine coarse sandy loam Carlsbad gravelly loamy sand Carlybad-Urban land complex Carrizo very gravelly sand TuB TuB Chesterton fine sandy loam Chesterton-Urban land complex Scale: 1:4,344 Map center: 33° 16' 26.08#034; N. THIS MAP/DATA IS PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO DPLU GIS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. This product may contain information from the SANDAG Regional Information System which cannot be reproduced without the written permission of SANDAG.

Figure 1. Soil Types

**Table 2. Soil Quality Matrix** 

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
Row 1	Soil Type Fallbrook sandy loam, 5 to 9 percent	Size of project site (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance?  (Yes = 1, No = 0)	Multiply Column E x Column F
	slopes, eroded (FaC2)	,,,	_	<b>-</b>	0.01	,	0.04
Row 2	Ramona sandy loam, 5 to 9 percent slopes (RaC)	0.48	0.21	0.27	0.01	1	0.01
Row 3	Visalia sandy loam, 0 to 2 percent slopes (VaA)	0.27	0.27	0	0.00	1	0
Row 4	Cieneba very rocky coarse sandy loam, 30 to 75 percent slopes (CmrG)	49.85	2.02	47.83	0.90	0	0
Row 5	Cieneba coarse sandy loam, 15 to 30 percent slopes, eroded (CIE2)	3.2	0	3.2	0.05	0	0
Row 7	Total	57.9	Total	53.4		r	
Row 8						Soil Quality Matrix Score	0.05

Table 3. Soil Quality Matrix Interpretation

Soil Quality Matrix Score	Soil Quality Rating
The site has a Soil Quality Matrix score ranging from 0.66 to 1.0 and has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	High
The site has a Soil Quality Matrix score ranging from 0.33 to 0.66 or the site has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	Moderate
The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils	<u>Low</u>

#### 2.4 Surrounding Land Use

Surrounding land use is a factor in determining the importance of an agricultural resource because surrounding land uses that are compatible with agriculture make a site more attractive for agricultural use due to lower expectations of nuisance issues and other potential impacts from non-farm neighbors. This factor also accounts for the degree to which an area is primarily agricultural, assigning a higher rating to areas dominated by agricultural uses than an area dominated by higher density, urban development.

Figure 2 identifies the ¼ mile area surrounding the project site that defines the project's Zone of Influence (ZOI). Based on a review of the land uses within the ZOI, there are no incompatible land uses in the surrounding area, the area contains active agricultural lands, Williamson Act contracted lands, existing agricultural easements, vacant land, Interstate 15, and scattered rural residential uses. Based on review of these land use, at least 50% of the ZOI is compatible with agricultural use and the site receives a <a href="https://example.com/high-rating-for-surrounding-land-use.">https://example.com/high-rating-for-surrounding-land-use.</a>

Table 4. Surrounding Land Use Rating

Percentage of Land within ZOI that is Compatible with Agriculture	Surrounding Land Use Rating	
50% or greater	High	
Greater than 25% but less than 50%	Moderate	
25% or less	Low	

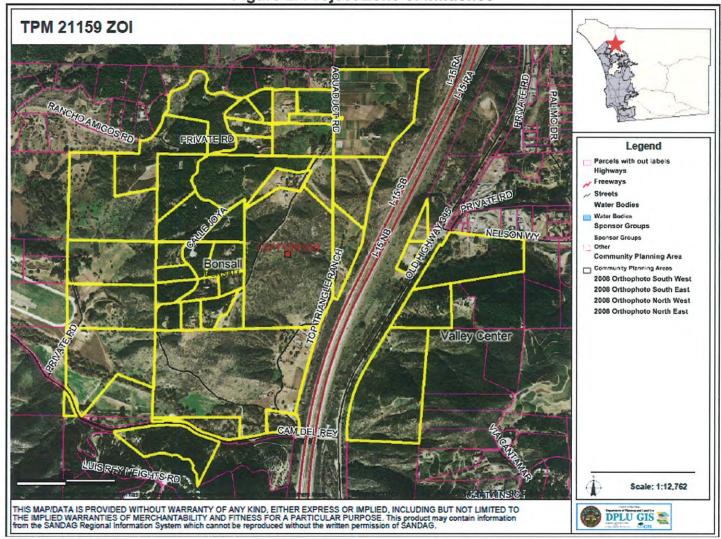


Figure 2. Project Zone of Influence

#### 2.5 Land Use Consistency

The median parcel size associated with the project site compared to the median parcel size of parcels located within the ZOI is a complementary factor used in the LARA model.

The project consists of subdividing one 58.34 acre parcel into 4 lots plus a remainder parcel. The proposed parcel sizes range from 7.4 acres to 13.1 acres, with an average parcel size of 11.7 acres. The range of parcels sizes in the ZOI is 2.02 acres to 65.39 acres. The median parcel size among parcels in the ZOI is 33.71. Therefore, since the project's median parcel size is small than the median parcel size within the project's ZOI, the project receives a **high** land use consistency rating.

**Table 5. Land Use Consistency Rating** 

Project's median parcel size compared to ZOI median parcel size	Land Use Consistency Rating
The project's median parcel size is smaller than the median parcel size within the project's ZOI	High
The project's median parcel size is up to ten acres larger than the median parcel size within the project's ZOI	Moderate
The project's median parcel size is larger than the median parcel size within the project's ZOI by ten acres or more	Low

#### 2.6 Slope

The Slope Rating for the site is based on the average slope for the area of the site that is available for agricultural use, as identified the Soil Quality Rating Matrix. Approximately 4.2 acres are in the 0-15% slope range; 5.9 acres are in the 15-25% slope range; and 47.8 acres are above 25% slope. Therefore, the average slope for the site falls in the 25% slope and higher category, resulting in a **low** rating for slope.

Table 6. Slope Rating

Average Slope	Topography Rating	
Less than 15% slope	High	
15% up to 25% slope	Moderate	
25% slope and higher	Low	

### 3.0 LARA MODEL RESULTS

The ratings for each LARA model factor for the project site are as follows:

Required Factors
Water = High
Climate = High
Soil Quality = Low

Complimentary Factors
Surrounding land use = High
Land use consistency rating = High
Slope = Low

Table 7. Interpretation of LARA Model Results

	LARA Model Interpretation			
Possible Scenarios	Required Factors	Complementary Factors		
Scenario 1	All three factors rated high	At least one factor rated high or moderate		
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	The site is an important agricultural resource	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high		
Scenario 4	All factors rated moderate	All factors rated high		
Scenario 5	At least one factor rated low importance	N/A	The site is <i>not</i> an important	
Scenario 6	All other model results		agricultural resource	

Based on the site conditions, the project's LARA model scoring falls under Scenario 5, indicating that the site is not an important agricultural resource. To be considered an important agricultural resource under the LARA model, a soil rating of either high or moderate must be present. The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils. Therefore, the project receives a low rating for soil quality based on this score, which means that the site is not considered an important agricultural resource.